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NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JAN 02	STN pricing information for 2008 now available
NEWS	3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	5	JAN 28	MARPAT searching enhanced
NEWS	6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS	9	FEB 08	STN Express, Version 8.3, now available
NEWS	10	FEB 20	PCI now available as a replacement to DPICI
NEWS	11	FEB 25	IFIREF reloaded with enhancements
NEWS	12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS	14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS	15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS	16	MAR 31	CA/Caplus and CASREACT patent number format for U.S. applications updated
NEWS	17	MAR 31	LPICI now available as a replacement to LDPCI
NEWS	18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS	20	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS	21	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS	22	APR 28	IMRESEARCH reloaded with enhancements
NEWS	23	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS	24	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS	25	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS	26	JUN 06	KOREAPAT updated with 41,000 documents
NEWS	27	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS	28	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS	29	JUN 25	CA/Caplus and USPAT databases updated with IPC

reclassification data  
 NEWS 30 JUN 30 AEROSPACE enhanced with more than 1 million U.S.  
 patent records  
 NEWS 31 JUN 30 EMBASE, EMBAL, and LEMBASE updated with additional  
 options to display authors and affiliated  
 organizations  
 NEWS 32 JUN 30 STN on the Web enhanced with new STN AnaVist  
 Assistant and BLAST plug-in  
 NEWS 33 JUN 30 STN AnaVist enhanced with database content from EPFULL  
 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
 AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.  
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 NEWS IPC8 For general information regarding STN implementation of IPC 8

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 15:42:45 ON 03 JUL 2008

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.63	0.63

FILE 'REGISTRY' ENTERED AT 15:44:21 ON 03 JUL 2008

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STRUCTURE FILE UPDATES: 2 JUL 2008 HIGHEST RN 1032450-11-5

DICTIONARY FILE UPDATES: 2 JUL 2008 HIGHEST RN 1032450-11-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

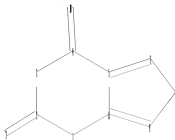
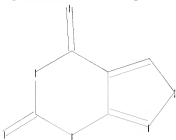
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REGISTRY includes numerically searchable data for experimental and  
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=>

Uploading C:\Program Files\Stnexp\Queries\10597860.str



chain nodes :

10 11

ring nodes :

1 2 3 4 5 6 7 8 9

chain bonds :

2-11 4-10

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9

exact/norm bonds :

1-2 1-6 2-3 2-11 3-4 4-5 4-10 5-6 5-7 6-9 7-8 8-9

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS

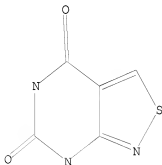
11:CLASS

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

10/141,986

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=> s l1 sam
SAMPLE SEARCH INITIATED 15:44:46 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -          30 TO ITERATE

100.0% PROCESSED          30 ITERATIONS          3 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:   272 TO    928
PROJECTED ANSWERS:      3 TO     163

L2          3 SEA SSS SAM L1
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FULL SEARCH INITIATED 15:44:53 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -          606 TO ITERATE

100.0% PROCESSED          606 ITERATIONS          111 ANSWERS
SEARCH TIME: 00.00.01

L3          111 SEA SSS FUL L1
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COST IN U.S. DOLLARS          SINCE FILE          TOTAL
                                ENTRY          SESSION
FULL ESTIMATED COST          178.36          178.99
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FILE 'CAPLUS' ENTERED AT 15:44:59 ON 03 JUL 2008  
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FILE COVERS 1907 - 3 Jul 2008 VOL 149 ISS 1  
FILE LAST UPDATED: 2 Jul 2008 (20080702/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=> s l3

10/141,986

L4 24 L3

=> s 14 not (2008so or 2007/so or 2006/so or 2005/so)

0 2008SO

941580 2007/SO

943642 2006/SO

884541 2005/SO

L5 23 L4 NOT (2008SO OR 2007/SO OR 2006/SO OR 2005/SO)

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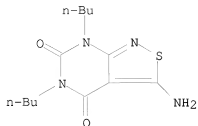
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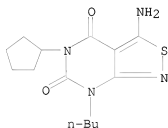
L6 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:902901 CAPLUS  
 DOCUMENT NUMBER: 143:229880  
 TITLE: Preparation of isothiazolopyrimidinediones as  
 parathyroid hormone type I receptor (PTH1R) agonists  
 for treatment of osteoporosis.  
 INVENTOR(S): Spearing, Paul Kenneth  
 PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA  
 SOURCE: PCT Int. Appl., 21 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005077959	A1	20050825	WO 2005-US3247	20050203
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1713815	A1	20061025	EP 2005-712622	20050203
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR, IS			
JP 2007522214	T	20070809	JP 2006-553161	20050203
US 20070099940	A1	20070503	US 2006-597860	20060810
PRIORITY APPLN. INFO.:			US 2004-543764P	P 20040211
			WO 2005-US3247	W 20050203
OTHER SOURCE(S):	CASREACT 143:229880; MARPAT 143:229880			
IT 52903-32-9P 862980-97-0P				
RL:	PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)			
	(claimed compound; preparation of isothiazolopyrimidinediones as parathyroid hormone type I receptor agonists for treatment of osteoporosis)			
RN 52903-32-9	CAPLUS			
CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dibutyl-				(CA
INDEX NAME)				



RN 862980-97-0 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-butyl-5-cyclopentyl- (CA INDEX NAME)



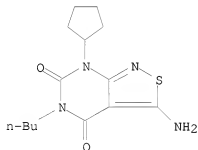
IT 862981-03-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

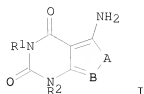
(preparation of isothiazolopyrimidinediones as parathyroid hormone type I receptor agonists for treatment of osteoporosis)

RN 862981-03-1 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5-butyl-7-cyclopentyl- (CA INDEX NAME)



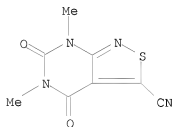
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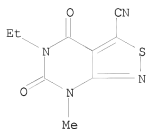
AB Title compds. [I; A, B = S, O, N, CH; R1, R2 = (substituted) alkyl, alkylene, cycloalkyl, aryl, heteroaryl, heterocycloalkyl, cycloalkylaryl, heterocycloaryl], were prepared. Thus, 6-amino-1,3-dibutyl-1H-pyrimidine-2,4-dione in DMF was treated with 1-isothiocyanato-4-methoxybenzene at 23° followed by stirring at 100° for 16 h to give 70% 6-amino-1,3-dibutyl-N-(4-methoxybenzyl)-2,3-dioxo-1,2,3,4-tetrahydropyrimidine-5-carbothioamide. The latter in CHCl<sub>3</sub> was treated with Br<sub>2</sub> followed by stirring for 36 h at 23° to give 34% 3-amino-5,7-dibutylisothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione. I showed binding to PTH1R in membrane preps. of HEK cells with IC<sub>50</sub> = 2-3 μM.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:50046 CAPLUS  
 DOCUMENT NUMBER: 138:255198  
 TITLE: Novel Synthesis and Reactions of 5,7-Dialkyl-4,6-dioxo-4,5,6,7-tetrahydroisothiazolo[3,4,-d]pyrimidine-3-carbonitriles and 6-Methyl-4-oxo-4H-1-aza-5-oxa-2-thiaindene-3-carbonitrile  
 AUTHOR(S): Chang, Yong-Goo; Cho, Hyong Soon; Kim, Kyongtae  
 CORPORATE SOURCE: School of Chemistry and Molecular Engineering, Seoul National University, Seoul, 151-742, S. Korea  
 SOURCE: Organic Letters (2003), 5(4), 507-510  
 CODEN: ORLEF7; ISSN: 1523-7060  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:255198  
 IT 502793-19-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and substitution of 5,7-dialkyl-4,6-dioxo-4,5,6,7-tetrahydroisothiazolo[3,4,-d]pyrimidine-3-carbonitriles and 6-methyl-4-oxo-4H-1-aza-5-oxa-2-thiaindene-3-carbonitrile)  
 RN 502793-19-3 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-3-carbonitrile, 4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxo- (CA INDEX NAME)

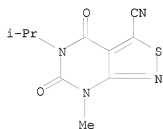


IT 502793-20-6P 502793-21-7P 502793-22-8P  
 502793-23-9P 502793-24-0P 502793-25-1P  
 502793-26-2P 502793-27-3P 502793-28-4P  
 502793-29-5P 502793-30-8P 502793-31-9P  
 502793-32-0P 502793-33-1P 502793-34-2P  
 502793-35-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and substitution of 5,7-dialkyl-4,6-dioxo-4,5,6,7-tetrahydroisothiazolo[3,4,-d]pyrimidine-3-carbonitriles and 6-methyl-4-oxo-4H-1-aza-5-oxa-2-thiaindene-3-carbonitrile)  
 RN 502793-20-6 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-3-carbonitrile, 5-ethyl-4,5,6,7-tetrahydro-7-methyl-4,6-dioxo- (CA INDEX NAME)



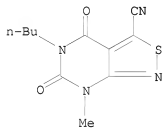
RN 502793-21-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-carbonitrile, 4,5,6,7-tetrahydro-7-methyl-5-(1-methylethyl)-4,6-dioxo- (CA INDEX NAME)



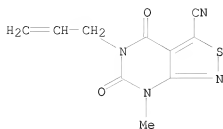
RN 502793-22-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-carbonitrile, 5-butyl-4,5,6,7-tetrahydro-7-methyl-4,6-dioxo- (CA INDEX NAME)



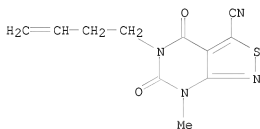
RN 502793-23-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-carbonitrile, 4,5,6,7-tetrahydro-7-methyl-4,6-dioxo-5-(2-propen-1-yl)- (CA INDEX NAME)



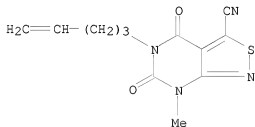
RN 502793-24-0 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-carbonitrile, 5-(3-buten-1-yl)-4,5,6,7-tetrahydro-7-methyl-4,6-dioxo- (CA INDEX NAME)



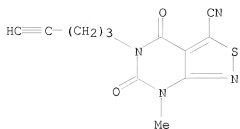
RN 502793-25-1 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-carbonitrile, 4,5,6,7-tetrahydro-7-methyl-4,6-dioxo-5-(4-penten-1-yl)- (CA INDEX NAME)



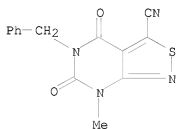
RN 502793-26-2 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-carbonitrile, 4,5,6,7-tetrahydro-7-methyl-4,6-dioxo-5-(4-pentyn-1-yl)- (CA INDEX NAME)



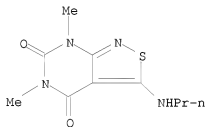
RN 502793-27-3 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-carbonitrile, 4,5,6,7-tetrahydro-7-methyl-4,6-dioxo-5-(phenylmethyl)- (CA INDEX NAME)



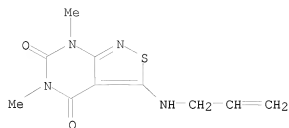
RN 502793-28-4 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(propylamino)- (CA INDEX NAME)



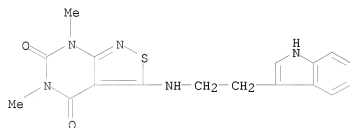
RN 502793-29-5 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(2-propen-1-ylamino)- (CA INDEX NAME)



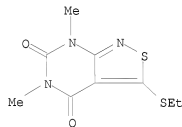
RN 502793-30-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[[2-(1H-indol-3-yl)ethyl]amino]-5,7-dimethyl- (CA INDEX NAME)



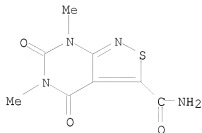
RN 502793-31-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(ethylthio)-5,7-dimethyl- (CA INDEX NAME)

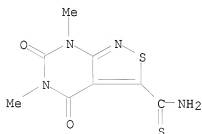


RN 502793-32-0 CAPLUS

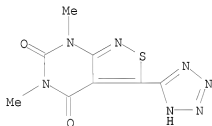
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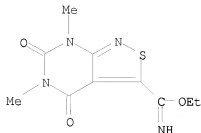
RN 502793-33-1 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-3-carbothioamide, 4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxo- (CA INDEX NAME)



RN 502793-34-2 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(2H-tetrazol-5-yl)- (CA INDEX NAME)



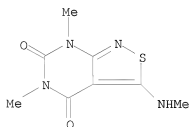
RN 502793-35-3 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-3-carboximidic acid, 4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxo-, ethyl ester (CA INDEX NAME)



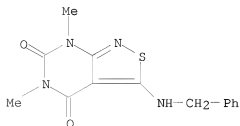
AB 5,7-Dialkyl-4,6-dioxo-4,5,6,7-tetrahydroisothiazolo[3,4-d]pyrimidine-3-carbonitriles, prepared from 6-amino-1,3-dialkyluracils and 4,5-dichloro-5H-1,2,3-dithiazolium chloride (Appel's salt, I), are utilized for the preparation of new derivs. bearing amino, alkylthio, amido, thioamido, tetrazolyl, and carboximidic acid Et ester groups at position 3. Similarly, the reactions of 6-methyl-4-oxo-4H-1-aza-5-oxa-2-thiaindene-3-carbonitrile (II), prepared from 4-amino-6-methyl-2-pyrone and I, with alkyl- and arylamines in DMF at 50 °C and reflux afforded various isothiazole derivs. On the other hand, treatment of II with 1,3-diaminopropane in THF at room temperature, followed by chromatog. on silica gel, gave 3-(2-oxopropyl)-6,7,8-trihydro-4H-1-thia-2,5,9-triazacyclopentacyclononene-4,10-dione in 59% yield.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:890751 CAPLUS  
 DOCUMENT NUMBER: 138:287618  
 TITLE: Ring closure reactions of  $\beta$ -nitroso-,  
 $\beta$ -acyl-, and  $\beta$ -thiocarbamoyl- $\alpha,\beta$ -  
 unsaturated sulfilimines. Synthesis of  
 [1,2,5]oxadiazolo[3,4-d]-, isoxazolo[3,4-d]-, and  
 isothiazolo[3,4-d]pyrimidine derivatives from uracils  
 AUTHOR(S): Matsumoto, Nobuaki; Takahashi, Masahiko  
 CORPORATE SOURCE: Faculty of Engineering, Department of Materials  
 Science, Ibaraki University, Hitachi, Ibaraki,  
 316-8511, Japan  
 SOURCE: Tetrahedron (2002), 58(50), 10073-10079  
 CODEN: TETRAB; ISSN: 0040-4020  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:287618  
 IT 61851-90-9P 70425-00-2P 73123-40-7P  
 506437-27-0P 506437-28-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and ring closure reactions of  $\beta$ -nitroso-,  $\beta$ -acyl-,  
 and  $\beta$ -thiocarbamoyl- $\alpha,\beta$ -unsatd. sulfilimines)  
 RN 61851-90-9 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-  
 (methylamino)- (CA INDEX NAME)

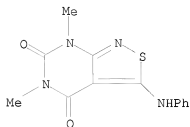


RN 70425-00-2 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-  
 [(phenylmethyl)amino]- (CA INDEX NAME)



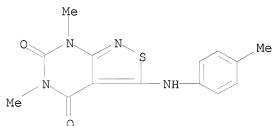
RN 73123-40-7 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-

(phenylamino)- (CA INDEX NAME)



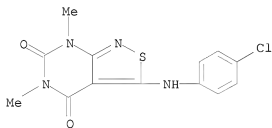
RN 506437-27-0 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(4-methylphenyl)amino]- (CA INDEX NAME)



RN 506437-28-1 CAPLUS

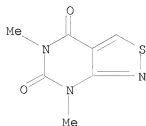
CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[(4-chlorophenyl)amino]-5,7-dimethyl- (CA INDEX NAME)



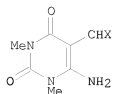
AB 1,3-Dialkyl-6-chlorouracils were treated with S,S-diphenylsulfilimine to give N-(1,3-dialkyluracil-6-yl)-S,S-diphenylsulfilimines. The uracilylsulfilimines were nitrosated, acylated, or thiocarbamoylated to give N-(5-nitroso-, 5-acyl-, or 5-thiocarbamoyluracil-6-yl)sulfilimines, resp. These conjugated sulfilimines were cyclized by thermolysis or photolysis to [1,2,5]oxadiazolo[3,4-d]-isoxazolo[3,4-d]- or isothiazolo[3,4-d]pyrimidine derivs.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

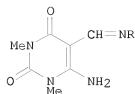
L6 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1997:213322 CAPLUS  
 DOCUMENT NUMBER: 126:293309  
 ORIGINAL REFERENCE NO.: 126:56801a,56804a  
 TITLE: Reactivities of 6-amino-1,3-dimethyl-5-thioformyluracil toward nucleophiles and its application to synthesis of pyrido[2,3-d]pyrimidines  
 AUTHOR(S): Hirota, Kosaku; Kubo, Keiko; Sajiki, Hironao  
 CORPORATE SOURCE: Laboratory of Medicinal Chemistry, Gifu Pharmaceutical University, Gifu, 502, Japan  
 SOURCE: Chemical & Pharmaceutical Bulletin (1997), 45(3), 542-544  
 CODEN: CPBTAL; ISSN: 0009-2363  
 PUBLISHER: Pharmaceutical Society of Japan  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 126:293309  
 IT 181465-22-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (reactions of thioformyluracil derivative with nucleophiles)  
 RN 181465-22-5 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl- (CA INDEX NAME)



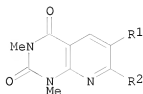
GI



I



II

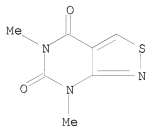


III

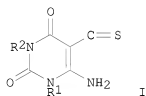
AB The reaction of the 5-thioformyluracil I ( $X = S$ ) with phenylhydrazine and various amines readily afforded the hydrazone II ( $R = \text{NHPh}$ ) and Schiff bases II ( $R = \text{OH, Me, Ph}$ ), resp. Further, carbanions and Wittig reagents reacted with I ( $X = S$ ) to give pyrido[2,3-d]pyrimidines III [ $R_1 = \text{cyano, CO}_2\text{Et}$ ,  $R_2 = \text{NH}_2$ ;  $R_1 = \text{CO}_2\text{Et}$ ,  $R_2 = \text{OH}$ ;  $R_1 = \text{H}$ ,  $R_2 = \text{NH}_2$ ]. The corresponding 5-formyluracil I ( $X = \text{O}$ ) possessed much lower reactivities toward these nucleophiles than did I ( $X = S$ ).

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1996:457576 CAPLUS  
 DOCUMENT NUMBER: 125:221422  
 ORIGINAL REFERENCE NO.: 125:41381a,41384a  
 TITLE: Stable thioaldehydes: synthesis, structure assignment,  
 and stability of 6-amino-5-thioformyluracils  
 AUTHOR(S): Hirota, Kosaku; Sajiki, Hironao; Kubo, Keiko; Kido,  
 Masaru; Nakagawa, Kazuyuki  
 CORPORATE SOURCE: Lab. of Medicinal Chemistry, Gifu Pharmaceutical  
 Univ., Gifu, 502, Japan  
 SOURCE: Tetrahedron (1996), 52(30), 9971-9978  
 CODEN: TETRAB; ISSN: 0040-4020  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 181465-22-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and properties of (amino)dioxypyrimidinecarbothioaldehydes)  
 RN 181465-22-5 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl- (CA INDEX  
 NAME)



GI



AB Stable 6-amino-5-thioformyluracils (i.e., dioxypyrimidinecarbothioaldehydes ) I (R1 = Me, Ph, Bu, etc.; R2 = Me, Pr) were synthesized starting from 6-amino-1,3-disubstituted uracils in 23-98% yields. According to the x-ray crystal structure, although I (R1 = Ph, R2 = Me) possessed reasonable double-bond character of the C=S bond, the length of C=S bond in I (R1 = Ph, R2 = Me) is longer than that in of kinetically stabilized thioaldehydes due to the mesomeric effect of the 6-amino group.

L6 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1983:107682 CAPLUS  
 DOCUMENT NUMBER: 98:107682  
 ORIGINAL REFERENCE NO.: 98:16429a,16432a  
 TITLE: Glucoside derivatives  
 PATENT ASSIGNEE(S): Ogura, Haruo, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57146796	A	19820910	JP 1981-32498	19810309
PRIORITY APPLN. INFO.:			JP 1981-32498	19810309

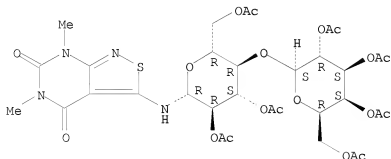
IT 80681-66-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

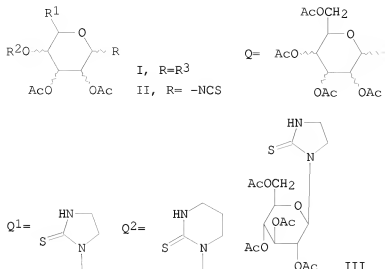
RN 80681-66-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[[2,3,6-tri-O-acetyl-4-O-(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)-β-D-glucopyranosyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



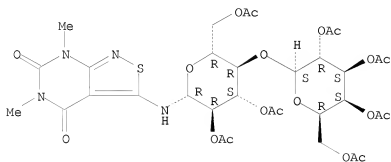
GI



AB Nineteen glycoside derivs. I [R<sup>1</sup> = H, CH<sub>2</sub>OH, CH<sub>2</sub>OAc; R<sub>2</sub> = Ac, Q; R<sub>3</sub> = NHCSNHCH<sub>2</sub>CH<sub>2</sub>OH, NHCSNHNHCSNH<sub>2</sub>, Q<sub>1</sub>, Q<sub>2</sub>, etc.] were prepared by reaction of II with the corresponding amino compds. Thus, a mixture of 389 mg β-D-II (R<sub>1</sub> = CH<sub>2</sub>OAc, R<sub>2</sub> = Ac) and 116 mg ClCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>·HCl in pyridine was stirred 3 h at room temperature to give 95% III.

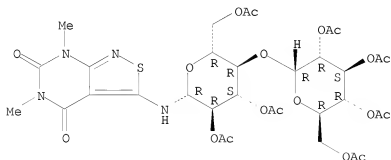
L6 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1983:72644 CAPLUS  
 DOCUMENT NUMBER: 98:72644  
 ORIGINAL REFERENCE NO.: 98:11139a,11142a  
 TITLE: Syntheses of disaccharide isothiocyanates and nucleoside related compounds  
 AUTHOR(S): Ogura, Haruo; Takahashi, Hiroshi; Kobayashi, Minae  
 CORPORATE SOURCE: Sch. Pharm. Sci., Kitasato Univ., Tokyo, 108, Japan  
 SOURCE: Nippon Kagaku Kaishi (1982), (10), 1673-81  
 CODEN: NKAKB8; ISSN: 0369-4577  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 IT 80681-66-9P 84597-66-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 80681-66-9 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[[2,3,6-tri-O-acetyl-4-O-(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)-β-D-glucopyranosyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

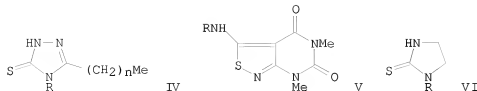


RN 84597-66-0 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[[2,3,6-tri-O-acetyl-4-O-(2,3,4,6-tetra-O-acetyl-α-D-glucopyranosyl)-β-D-glucopyranosyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



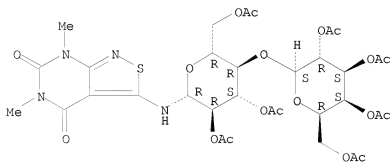
GI



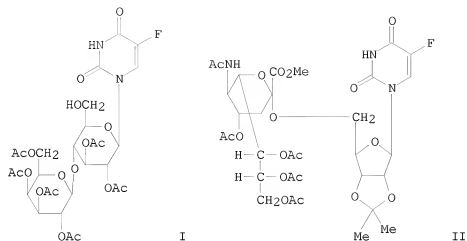
AB Modified nucleoside analogs were prepared starting from hepta-O-acetyl- $\beta$ -lactosyl isothiocyanate (I), hepta-O-acetyl- $\beta$ -maltosyl isothiocyanate (II), and hepta-O-acetyl- $\beta$ -cellobiosyl isothiocyanate (III). I-III reacted with acylhydrazines to give RNHCSNHNHCO(CH<sub>2</sub>)<sub>n</sub>Me (R = disaccharide residue), which afforded triazole disaccharides (IV) by treatment with Ac<sub>2</sub>O-H<sub>3</sub>PO<sub>4</sub> through cyclodehydration reaction. Reactions of I-III with 6-amino-1,3-dimethyluracil gave disaccharide aminoisothiazolopyrimidines (V) in good yields. Treatment of I-III with 2-amino-2-deoxy- $\beta$ -D-glucopyranose yielded diglycosylthiureas. Reactions of I-III with chloroethylamine hydrochloride under basic conditions afforded disaccharide imidazolidinethiones (VI) instead of N-glycosyl-N'-chloroethylthiureas.

L6 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1982:85908 CAPLUS  
 DOCUMENT NUMBER: 96:85908  
 ORIGINAL REFERENCE NO.: 96:14119a,14122a  
 TITLE: Synthetic O-glycosyl nucleoside analogs  
 AUTHOR(S): Ogura, Haruo; Furuhata, Fimio; Iwaki, Kazuo;  
 Takahashi, Hiroshi  
 CORPORATE SOURCE: Sch. Pharm. Sci., Kitasato Univ., Tokyo, 108, Japan  
 SOURCE: Nucleic Acids Symposium Series (1981), 10, 23-6  
 CODEN: NACSD8; ISSN: 0261-3166  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 80681-66-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 80681-66-9 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[[2,3,6-tri-O-acetyl-4-O-(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)-β-D-glucopyranosyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI



AB O-Glycosyl- and O-neuraminoylnucleosides, e.g., I and II, were prepared I was prepared by condensation of 1,6-anhydro-D-lactose hexaacetate with trimethylsilylated 5-fluorouracil in the presence of  $\text{SnCl}_4$ . II was prepared by reaction of Me 2-chloro-4,7,8,9-tetra-O-acetyl-N-acetyl-D-neuramine with 2',3'-O-isopropylidene-5-fluorouridine.

L6 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:128845 CAPLUS

DOCUMENT NUMBER: 92:128845

ORIGINAL REFERENCE NO.: 92:21015a,21018a

TITLE: Enamino carbodithioates. III. Methyl  
6-aminouracil-5-carbodithioates. 3. Synthesis and  
reactions of 3-methylthioisothiazolo[3,4-d]pyrimidine-  
4,6(5H,7H)-diones

AUTHOR(S): Okuda, Hiroto; Tominaga, Yoshinori; Matsuda, Yoshiro;  
Kobayashi, Goro

CORPORATE SOURCE: Fac. Pharm. Sci., Nagasaki Univ., Nagasaki, 852, Japan

SOURCE: Yakugaku Zasshi (1979), 99(10), 989-92

CODEN: YKKZAJ; ISSN: 0031-6903

JOURNAL: Journal

LANGUAGE: Japanese

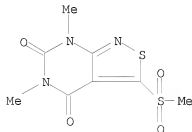
IT 73123-41-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation and reactions with amines)

RN 73123-41-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-  
(methylsulfonyl)- (CA INDEX NAME)



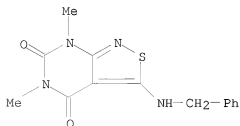
IT 70425-00-2P 70425-05-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation and substitution reactions of)

RN 70425-00-2 CAPLUS

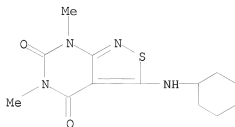
CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-  
[(phenylmethyl)amino]- (CA INDEX NAME)



RN 70425-05-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(cyclohexylamino)-5,7-

dimethyl- (CA INDEX NAME)

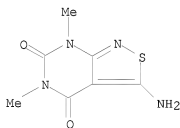


IT 52903-30-7P 52903-33-0P 61851-90-9P  
 70425-00-2P 70425-01-3P 70425-02-4P  
 70425-03-5P 70425-04-6P 70425-05-7P  
 70425-06-8P 70425-07-9P 70425-10-4P  
 70425-11-5P 70425-12-6P 70425-13-7P  
 73123-40-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

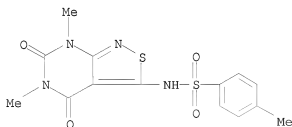
RN 52903-30-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dimethyl- (CA INDEX NAME)



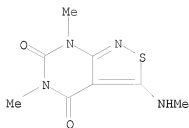
RN 52903-33-0 CAPLUS

CN Benzenesulfonamide, 4-methyl-N-(4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



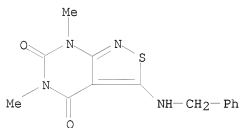
RN 61851-90-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(methylamino)- (CA INDEX NAME)



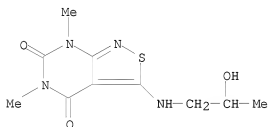
RN 70425-00-2 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(phenylmethyl)amino]- (CA INDEX NAME)



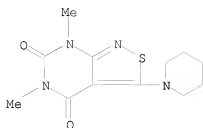
RN 70425-01-3 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[(2-hydroxypropyl)amino]-5,7-dimethyl- (CA INDEX NAME)



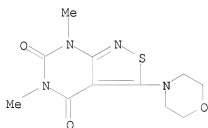
RN 70425-02-4 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(1-piperidinyl)- (CA INDEX NAME)



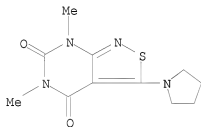
RN 70425-03-5 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(4-morpholinyl)- (CA INDEX NAME)



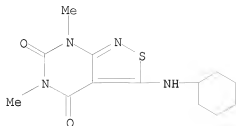
RN 70425-04-6 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(1-pyrrolidinyl)- (CA INDEX NAME)



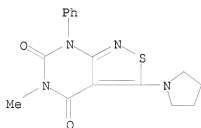
RN 70425-05-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(cyclohexylamino)-5,7-dimethyl- (CA INDEX NAME)



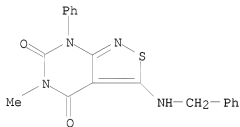
RN 70425-06-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5-methyl-7-phenyl-3-(1-pyrrolidinyl)- (CA INDEX NAME)



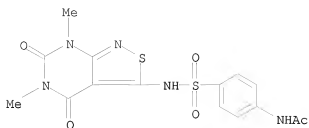
RN 70425-07-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5-methyl-7-phenyl-3-[(phenylmethyl)amino]- (CA INDEX NAME)

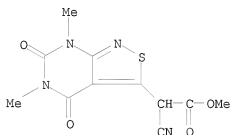


RN 70425-10-4 CAPLUS

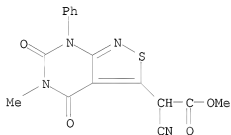
CN Acetamide, N-[4-[[[(4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoiso-thiazolo[3,4-d]pyrimidin-3-yl)amino]sulfonyl]phenyl]- (CA INDEX NAME)



RN 70425-11-5 CAPLUS

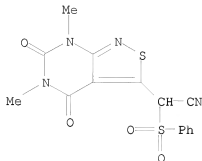
CN Isothiazolo[3,4-d]pyrimidine-3-acetic acid,  $\alpha$ -cyano-4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxo-, methyl ester (CA INDEX NAME)

RN 70425-12-6 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-acetic acid,  $\alpha$ -cyano-4,5,6,7-tetrahydro-5-methyl-4,6-dioxo-7-phenyl-, methyl ester (CA INDEX NAME)

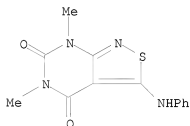
RN 70425-13-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-acetonitrile, 4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxo- $\alpha$ -(phenylsulfonyl)- (CA INDEX NAME)

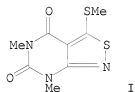


RN 73123-40-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(phenylamino)- (CA INDEX NAME)



GI



I

AB 3-Methylthioisothiazolopyrimidinediones I (R = Me, Ph) were prepared by treatment with Me 6-aminouracil-5-carbodithioates, prepared by the reaction of 6-aminouracil with CS<sub>2</sub> and Me<sub>2</sub>SO<sub>4</sub> in the presence of alkali, with iodine in Me<sub>2</sub>SO in a good yield. The reaction of I with amines, amides, and active methylene compds. gave the corresponding substituted products.

L6 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:22750 CAPLUS

DOCUMENT NUMBER: 92:22750

ORIGINAL REFERENCE NO.: 92:3877a,3880a

TITLE: Studies on heterocyclic compounds. Part XXIX. A one-step synthesis of glycosylaminoisothiazolo[3,4-d]pyrimidines and glycosylaminoisothiazoles  
 Takahashi, Hiroshi; Nimura, Noriyuki; Ogura, Haruo  
 Sch. Pharm. Sci., Kitasato Univ., Tokyo, 108, Japan  
 Chemical & Pharmaceutical Bulletin (1979), 27(5), 1147-52

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

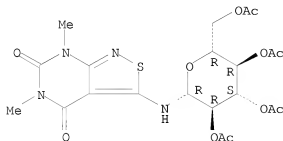
IT 58911-57-2P 62374-42-9P 62374-43-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 58911-57-2 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)amino]- (9CI) (CA INDEX NAME)

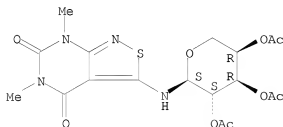
Absolute stereochemistry.



RN 62374-42-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,4-tri-O-acetyl- $\alpha$ -D-arabinopyranosyl)amino]- (9CI) (CA INDEX NAME)

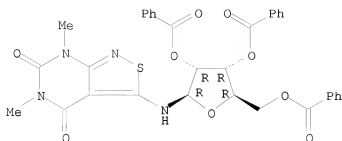
Absolute stereochemistry.



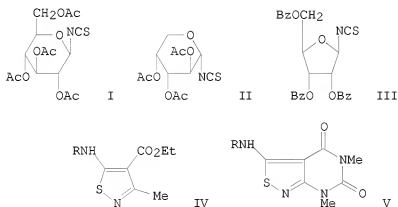
RN 62374-43-0 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,5-tri-O-benzoyl- $\beta$ -D-ribofuranosyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

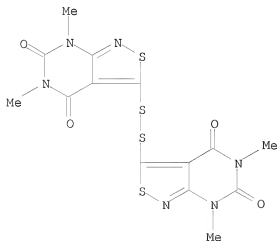


GI

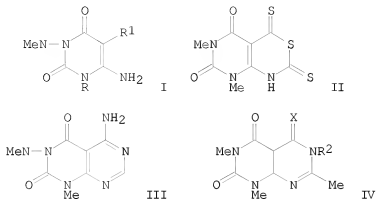


AB The reaction of glycosyl isothiocyanate I with 2-aminopyridine or 2-amino-4-picoline gave N-glycosyl-N'-(2-pyridyl) thiourea and N-glycosyl-N'-(4-methyl-2-pyridyl) thiourea, resp., in good yields; cyclized products were not obtained. On the other hand, the reaction of glycosyl isothiocyanates I, II, and III with MeC(NH<sub>2</sub>):CHCO<sub>2</sub>Et gave MeC(NH<sub>2</sub>):C(CSNHR)CO<sub>2</sub>Et (R = glycosyl) and nucleoside analogs IV (R = glycosyl). Similar reaction of I-III with 6-amino-1,3-dimethyluracil gave nucleoside analogs V.

L6 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1979:575307 CAPLUS  
 DOCUMENT NUMBER: 91:175307  
 ORIGINAL REFERENCE NO.: 91:28279a,28282a  
 TITLE: Enamino carbodithioates. 1. Methyl  
 6-aminouracil-5-carbodithioates. 1. Synthesis and  
 reactions  
 AUTHOR(S): Tominaga, Yoshinori; Machida, Tsuyoshi; Okuda, Hiroto;  
 Matsuda, Yoshiro; Kobayashi, Goro  
 CORPORATE SOURCE: Fac. Pharm. Sci., Nagasaki Univ., Nagasaki, 852, Japan  
 SOURCE: Yakugaku Zasshi (1979), 99(5), 515-20  
 CODEN: YKKZAJ; ISSN: 0031-6903  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 OTHER SOURCE(S): CASREACT 91:175307  
 IT 71266-55-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 71266-55-2 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3,3'-dithiobis[5,7-dimethyl-  
 (9CI) (CA INDEX NAME)



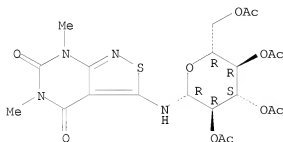
GI



AB The 6-aminouracils I (R = Me, Ph, R1 = H) treated with CS<sub>2</sub> and Me<sub>2</sub>SO<sub>4</sub> in NaOH-DMSO gave dithiocarboxylates I (R = MePh; R1 = CS<sub>2</sub>Me). An excess of CS<sub>2</sub> in the previous reaction with I (R = Me, R1 = H) gave the pyrimido[4,5-d][1,3]thiazine II in good yield. The reaction of I (R = Me, Ph; R1 = CS<sub>2</sub>Me) and R<sub>2</sub>NH (R<sub>2</sub> = H, NH<sub>2</sub>, Me, PhCH<sub>2</sub>, cyclohexyl, morpholino, HOCH<sub>2</sub>CH<sub>2</sub>, (EtO)<sub>2</sub>CHCH<sub>2</sub>), yielded thiocarbamoyluracils I [R = Me, Ph, R1 = C(S)NR<sub>2</sub>] in 31-91% yields. I [R = Me, R1 = C(S)SMe] and HCONH<sub>2</sub> reacted to yield III. Also prepared were pyrimido[4,5-d]pyrimidines IV (R<sub>2</sub> = H, Me; X = S) and IV (R<sub>2</sub> = PhCH<sub>2</sub>, X = O) from the reaction of I [R = Me, R1 = C(S)NR<sub>2</sub>, R<sub>2</sub> = H, Me, PhCH<sub>2</sub>] with Ac<sub>2</sub>O.

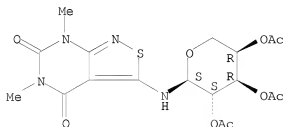
L6 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1979:439764 CAPLUS  
 DOCUMENT NUMBER: 91:39764  
 ORIGINAL REFERENCE NO.: 91:6497a,6500a  
 TITLE: Syntheses of nucleoside analogs using glycosyl  
 isothiocyanate  
 AUTHOR(S): Ogura, Haruo; Takahashi, Hiroshi  
 CORPORATE SOURCE: Sch. Pharm. Sci., Kitasato Univ., Tokyo, Japan  
 SOURCE: Tennen Yuki Kagobutsu Toronkai Koen Yoshishu, 21st  
 (1978), 221-8. Hokkaido Daigaku Nogakubu: Sapporo,  
 Japan.  
 CODEN: 39NQAF  
 DOCUMENT TYPE: Conference  
 LANGUAGE: Japanese  
 IT 58911-57-2P 62374-42-9P 62374-43-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 58911-57-2 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,4,6-  
 tetra-O-acetyl- $\beta$ -D-glucopyranosyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



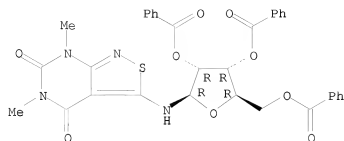
RN 62374-42-9 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,4-tri-  
 O-acetyl- $\alpha$ -D-arabinopyranosyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

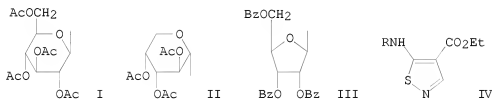


RN 62374-43-0 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,5-tri-  
 O-benzoyl- $\beta$ -D-ribofuranosyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

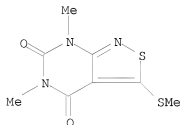


GI

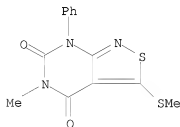


AB Various nucleoside analogs containing isothiazole, isothiazolopyrimidine, fused imidazole, pyrimidothiadiazine, pyrazolopyrimidine, triazole, or triazine moieties were prepared by using RNCS (R = I, II, or III). E.g., reaction of RNCS and MeC(NH<sub>2</sub>):CHCO<sub>2</sub>Et gave (glycosylamino)isothiazoles IV and MeC(NH<sub>2</sub>):C(SCNHR)CO<sub>2</sub>Et (V). V readily cyclized to IV.

L6 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1979:405191 CAPLUS  
 DOCUMENT NUMBER: 91:5191  
 ORIGINAL REFERENCE NO.: 91:975a,978a  
 TITLE: Enamino dithiocarboxylates. II. Methyl  
 6-aminouracil-5-dithiocarboxylates. 2. Synthesis and  
 reactions of 3-methylthioisothiazolo[3,4-d]pyrimidine-  
 4,6(5H,7H)-diones  
 AUTHOR(S): Okuda, Hiroto; Tominaga, Yoshinori; Matsuda, Yoshiro;  
 Kobayashi, Goro  
 CORPORATE SOURCE: Fac. Pharm. Sci., Nagasaki Univ., Nagasaki, 852, Japan  
 SOURCE: Heterocycles (1979), 12(4), 485-8  
 CODEN: HTCYAM; ISSN: 0385-5414  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 91:5191  
 IT 70424-98-5P 70424-99-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and nucleophilic substitutions of)  
 RN 70424-98-5 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(methylthio)-  
 (CA INDEX NAME)



RN 70424-99-6 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5-methyl-3-(methylthio)-7-  
 phenyl- (CA INDEX NAME)

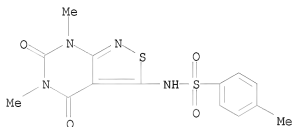


IT 52903-33-0P 61851-90-9P 70425-00-2P  
 70425-01-3P 70425-02-4P 70425-03-5P  
 70425-04-6P 70425-05-7P 70425-06-8P  
 70425-07-9P 70425-10-4P 70425-11-5P  
 70425-12-6P 70425-13-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

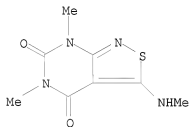
RN 52903-33-0 CAPLUS

CN Benzenesulfonamide, 4-methyl-N-(4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



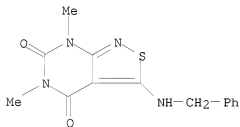
RN 61851-90-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(methylamino)- (CA INDEX NAME)



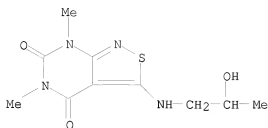
RN 70425-00-2 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(phenylmethyl)amino]- (CA INDEX NAME)



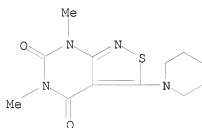
RN 70425-01-3 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[(2-hydroxypropyl)amino]-5,7-dimethyl- (CA INDEX NAME)



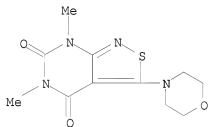
RN 70425-02-4 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(1-piperidinyl)- (CA INDEX NAME)



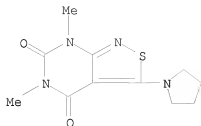
RN 70425-03-5 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(4-morpholinyl)- (CA INDEX NAME)



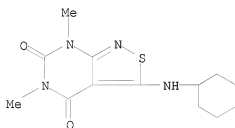
RN 70425-04-6 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(1-pyrrolidinyl)- (CA INDEX NAME)



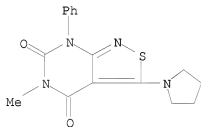
RN 70425-05-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(cyclohexylamino)-5,7-dimethyl- (CA INDEX NAME)



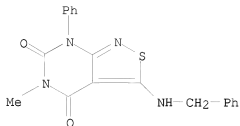
RN 70425-06-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5-methyl-7-phenyl-3-(1-pyrrolidinyl)- (CA INDEX NAME)



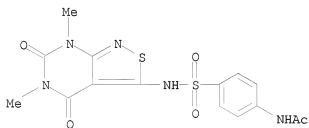
RN 70425-07-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5-methyl-7-phenyl-3-[(phenylmethyl)amino]- (CA INDEX NAME)



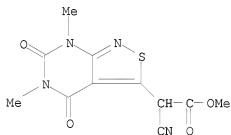
RN 70425-10-4 CAPLUS

CN Acetamide, N-[4-[[[4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl]amino]sulfonyl]phenyl]- (CA INDEX NAME)



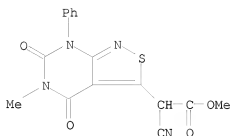
RN 70425-11-5 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-3-acetic acid,  $\alpha$ -cyano-4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxo-, methyl ester (CA INDEX NAME)

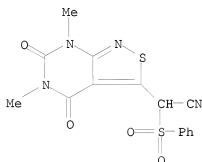


RN 70425-12-6 CAPLUS

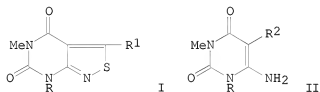
CN Isothiazolo[3,4-d]pyrimidine-3-acetic acid,  $\alpha$ -cyano-4,5,6,7-tetrahydro-5-methyl-4,6-dioxo-7-phenyl-, methyl ester (CA INDEX NAME)



RN 70425-13-7 CAPLUS

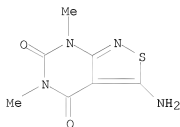
CN Isothiazolo[3,4-d]pyrimidine-3-acetonitrile, 4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxo- $\alpha$ -(phenylsulfonyl)- (CA INDEX NAME)

GI



AB Isothiazolopyrimidinediones I (R = Me, Ph; R1 = SMe) were obtained by treating uracils II (R2 = H) with CS<sub>2</sub> and Me<sub>2</sub>SO<sub>4</sub> and cyclizing II (R2 = CS<sub>2</sub>Me) with iodine. I (R1 = SMe) underwent nucleophilic substitution to give I [R1 = amino, CH(CN)CO<sub>2</sub>Me, CH(CN)SO<sub>2</sub>Ph].

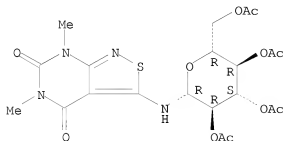
L6 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1978:580279 CAPLUS  
 DOCUMENT NUMBER: 89:180279  
 ORIGINAL REFERENCE NO.: 89:28019a,28022a  
 TITLE: Syntheses of modified nucleoside analogs with  
 isothiocyanates  
 AUTHOR(S): Ogura, Haruo; Takahashi, Hiroshi  
 CORPORATE SOURCE: Sch. Pharm. Sci., Kitasato Univ., Tokyo, Japan  
 SOURCE: Symp. Heterocycl., [Pap.] (1977), 135-40. Editor(s):  
 Kametani, Tetsuji. Sendai Inst. Heterocycl. Chem.:  
 Sendai, Japan.  
 CODEN: 38WUAV  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 IT 52903-30-7DP, glycosyl derivs.  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 52903-30-7 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dimethyl- (CA  
 INDEX NAME)



AB Syntheses of nucleoside analogs via reactions of glycosyl isothiocyanate  
 and glyconyl isothiocyanate with amino acids, enamines, and diamines are  
 outlined.

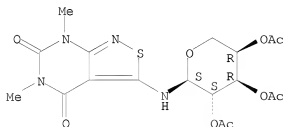
L6 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1977:140380 CAPLUS  
 DOCUMENT NUMBER: 86:140380  
 ORIGINAL REFERENCE NO.: 86:22061a,22064a  
 TITLE: Reaction of enamine with D-glycosyl and D-gluconyl  
 isothiocyanate  
 AUTHOR(S): Ogura, Haruo; Takahashi, Hiroshi; Takeda, Kazuyoshi;  
 Nimura, Noriyuki  
 CORPORATE SOURCE: Sch. Pharm. Sci., Kitasato Univ., Tokyo, Japan  
 SOURCE: Nucleic Acids Research, Special Publication (1976),  
 2(Symp. Nucleic Acids Chem., 4th, 1976), 7-10  
 CODEN: NARPD6; ISSN: 0309-1872  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 IT 58911-57-2P 62374-42-9P 62374-43-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 58911-57-2 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,4,6-  
 tetra-O-acetyl- $\beta$ -D-glucopyranosyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



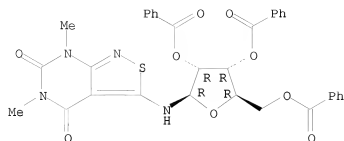
RN 62374-42-9 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,4-tri-  
 O-acetyl- $\alpha$ -D-arabinopyranosyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

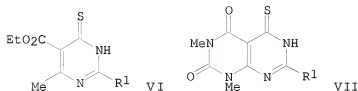
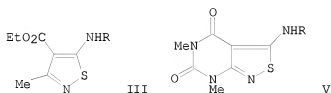


RN 62374-43-0 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,5-tri-  
 O-benzoyl- $\beta$ -D-ribofuranosyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI

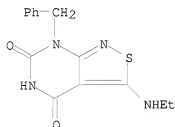


AB Treatment of RNCS (I; R = tetra-O-acetyl- $\beta$ -D-glucopyranosyl, tri-O-acetyl- $\alpha$ -D-arabinopyranosyl, tri-O-benzoyl- $\beta$ -D-ribofuranosyl) with  $\text{H}_2\text{NCMe:C(CO}_2\text{Et)}$  (II) in THF at room temperature gave isothazoles III and  $\text{H}_2\text{NCMe:C(CO}_2\text{Et)C(S)NHR}$ , and I cyclized with 6-amino-1,3-dimethyluracil (IV) to give thiazolopyrimidines V. Treatment of penta-O-acetyl-D-gluconyl isothiocyanate with II and IV gave VI and VII ( $\text{R}_1$  = penta-O-acetyl-D-gluconyl).

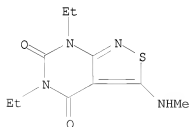
L6 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1977:89864 CAPLUS  
 DOCUMENT NUMBER: 86:89864  
 ORIGINAL REFERENCE NO.: 86:14197a,14200a  
 TITLE: Isothiazolo[3,4-d]pyrimidines  
 INVENTOR(S): Furukawa, Yoshiyasu; Shima, Shunsuke  
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51091294	A	19760810	JP 1975-16658	19750207

PRIORITY APPLN. INFO.:  
 IT 60663-75-4P 60663-76-5P 60663-78-7P  
 60663-79-8P 60663-80-1P 60663-83-4P  
 60663-84-5P 61851-90-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and alkylation of)  
 RN 60663-75-4 CAPLUS  
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 (phenylmethyl)- (CA INDEX NAME)

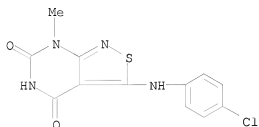


RN 60663-76-5 CAPLUS  
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 (CA INDEX NAME)



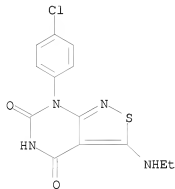
RN 60663-78-7 CAPLUS

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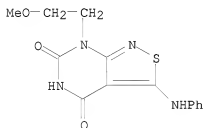
RN 60663-79-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 7-(4-chlorophenyl)-3-(ethylamino)- (CA INDEX NAME)



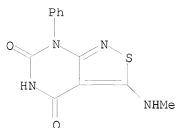
RN 60663-80-1 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 7-(2-methoxyethyl)-3-(phenylamino)- (CA INDEX NAME)



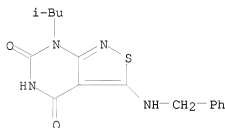
RN 60663-83-4 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(methylamino)-7-phenyl- (CA INDEX NAME)



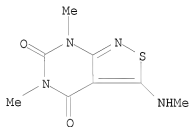
RN 60663-84-5 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 7-(2-methylpropyl)-3-[(phenylmethyl)amino]- (CA INDEX NAME)



RN 61851-90-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-(methylamino)- (CA INDEX NAME)



IT 56540-86-4P 56540-98-8P 56541-01-6P

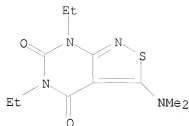
56541-02-7P 56541-03-8P 56541-04-9P

56541-05-0P 60663-90-3P 61851-88-5P

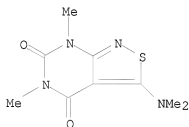
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(preparation of)

RN 56540-86-4 CAPLUS

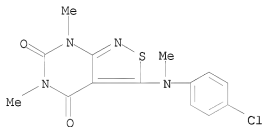
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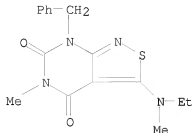
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 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-5,7-dimethyl- (CA INDEX NAME)



RN 56541-01-6 CAPLUS  
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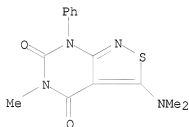


RN 56541-02-7 CAPLUS  
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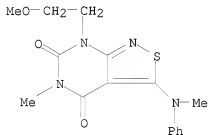
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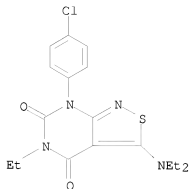
RN 56541-04-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 7-(2-methoxyethyl)-5-methyl-3-(methylphenylamino)- (CA INDEX NAME)



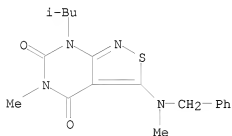
RN 56541-05-0 CAPLUS

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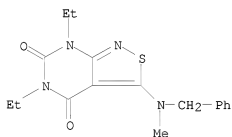
RN 60663-90-3 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5-methyl-3-  
[methyl(phenylmethyl)amino]-7-(2-methylpropyl)- (CA INDEX NAME)

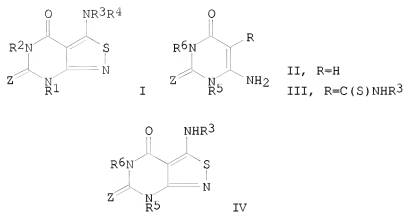


RN 61851-88-5 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,6H)-dione, 5,7-diethyl-3-  
[methyl(phenylmethyl)amino]- (9CI) (CA INDEX NAME)

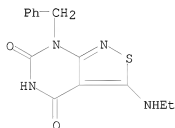


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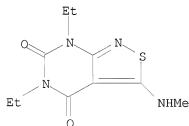


AB Isothiazolo[3,4-d]pyrimidines I (R<sup>1</sup>, R<sup>3</sup> = alkyl, aryl; R<sup>2</sup>, R<sup>4</sup> = alkyl; Z = O, S) were prepared by reaction of II (R<sup>5</sup>, R<sup>6</sup> = H, alkyl, aryl) with R<sup>3</sup>NC(S), cyclization of the resulting III, and alkylation of the resulting IV. I had adenosine 3',5'-cyclic phosphate phosphodiesterase-inhibiting activity and are useful as antiinflammatory agents and sedatives (no data). Thus, 7.32 g II (R<sup>5</sup> = R<sup>6</sup> = Et, Z = O) in pyridine was refluxed with 8 ml MeNCS 24 h to give 6.74 g III (R<sup>3</sup> = Me, R<sup>5</sup> = R<sup>6</sup> = Et, Z = O) (V). Stirring 5.8 g V in AcOEt with 3.4 ml Br 1 h at room temperature gave 5 g IV (R<sup>3</sup> = Me, R<sup>5</sup> = R<sup>6</sup> = Et, Z = O) (VI). Stirring a mixture of 5 g VI, 5 g K<sub>2</sub>CO<sub>3</sub>, and 5 ml MeI in DMF 16 h at room temperature gave 4 g I (R<sup>1</sup> = R<sup>2</sup> = Et, R<sup>3</sup> = R<sup>4</sup> = Me, Z = O). I also prepared were (R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, Z given): Me, Me, Me, Me, O; Ph, Me, Me, Me, O; p-ClC<sub>6</sub>H<sub>4</sub>, Et, Et, Et, O; Me, Me, p-ClC<sub>6</sub>H<sub>4</sub>, Me, O; PhCH<sub>2</sub>, Me, Et, Me, O; MeOCH<sub>2</sub>CH<sub>2</sub>, Me, Ph, Me, O; Et, Et, Me, Me, S; iso-Bu, Me, PhCH<sub>2</sub>, Me, O; and Et, Et, PhCH<sub>2</sub>, Me, O.

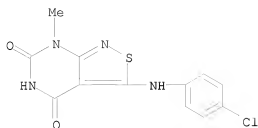
L6 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1976:560012 CAPLUS  
 DOCUMENT NUMBER: 85:160012  
 ORIGINAL REFERENCE NO.: 85:25613a,25616a  
 TITLE: Fused pyrimidines. II. Synthesis and oxidation of  
 3-aminoisothiazolo[3,4-d]pyrimidines  
 AUTHOR(S): Furukawa, Yoshiyasu; Shima, Shunsuke  
 CORPORATE SOURCE: Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, Japan  
 SOURCE: Chemical & Pharmaceutical Bulletin (1976), 24(5),  
 979-86  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 85:160012  
 IT 60663-75-4P 60663-76-5P 60663-78-7P  
 60663-79-8P 60663-83-4P 60663-84-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and alkylation of)  
 RN 60663-75-4 CAPLUS  
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 (phenylmethyl)- (CA INDEX NAME)



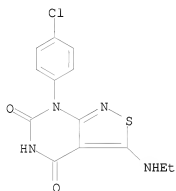
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 (CA INDEX NAME)



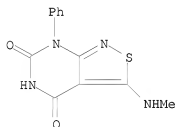
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 methyl- (CA INDEX NAME)



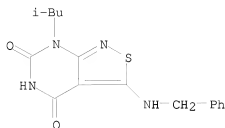
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CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 7-(4-chlorophenyl)-3-(ethylamino)- (CA INDEX NAME)



RN 60663-83-4 CAPLUS  
CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(methylamino)-7-phenyl- (CA INDEX NAME)



RN 60663-84-5 CAPLUS  
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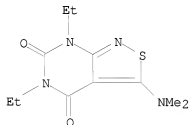


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RL: SPN (Synthetic preparation); PREP (Preparation)  
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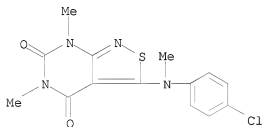
RN 56540-86-4 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-5,7-diethyl- (CA INDEX NAME)



RN 56541-01-6 CAPLUS

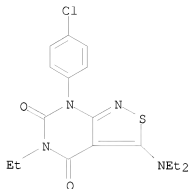
CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[(4-chlorophenyl)methylamino]-5,7-dimethyl- (CA INDEX NAME)



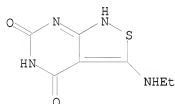
RN 56541-02-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(ethylmethylamino)-5-methyl-7-(phenylmethyl)- (CA INDEX NAME)

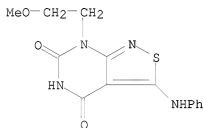




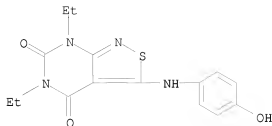
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 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(ethylamino)- (9CI) (CA INDEX NAME)



RN 60663-80-1 CAPLUS  
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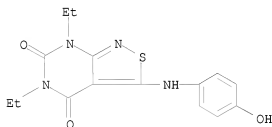


RN 60663-81-2 CAPLUS  
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RN 60663-82-3 CAPLUS

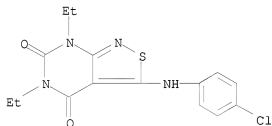
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● 2 HBr

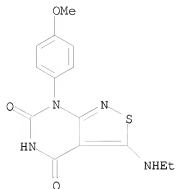
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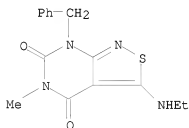
RN 60663-86-7 CAPLUS

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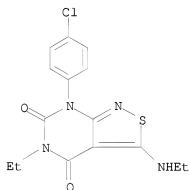
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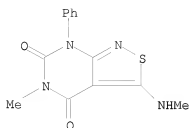
RN 60663-88-9 CAPLUS

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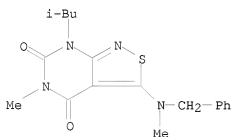
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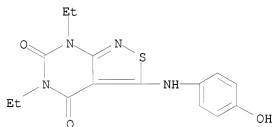
RN 60663-90-3 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5-methyl-3-[methyl(phenylmethyl)amino]-7-(2-methylpropyl)- (CA INDEX NAME)



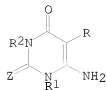
RN 60700-23-4 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-diethyl-3-[(4-hydroxyphenyl)amino]-, monohydrobromide (9CI) (CA INDEX NAME)

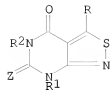
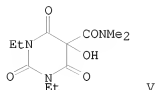


● HBr

GI



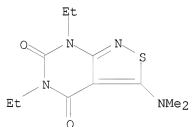
I, R=H, Z=O, S

II, R=C(S)NHR<sup>3</sup>, Z=O, SIII, R=NHR<sup>3</sup>IV, R=NR<sup>3</sup>R<sup>4</sup>

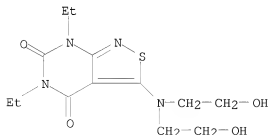
V

AB The 6-aminouracils I (R<sub>1</sub> = PhCH<sub>2</sub>, Et, H, Me, p-ClC<sub>6</sub>H<sub>4</sub>, MeOCH<sub>2</sub>CH<sub>2</sub>, Ph, Me<sub>2</sub>CHCH<sub>2</sub>, p-MeOC<sub>6</sub>H<sub>4</sub>; R<sub>2</sub> = H, Et) reacted with SCNR<sub>3</sub> (R<sub>3</sub> = Et, Me, C<sub>6</sub>H<sub>4</sub>Cl-p, Ph, C<sub>6</sub>H<sub>4</sub>OH-p, CH<sub>2</sub>Ph) to give the thiocarbamoyluracils II, which were oxidized with Br or H<sub>2</sub>O<sub>2</sub> to give the isothiazolopyrimidinediones III, whose alkylation with R<sub>4</sub>I (R<sub>4</sub> = Me, Et) gave the (disubstituted amino)isothiazolopyrimidines IV. Further oxidation of III or IV (R<sub>1</sub> = R<sub>2</sub> = Et, R<sub>3</sub> = R<sub>4</sub> = Me) with H<sub>2</sub>O<sub>2</sub> gave the hydroxybarbituric acid V. Aminoisothiazolopyrimidines are potential cyclic nucleotide phosphodiesterase inhibitors.

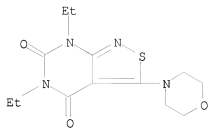
L6 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1976:560011 CAPLUS  
 DOCUMENT NUMBER: 85:160011  
 ORIGINAL REFERENCE NO.: 85:25613a,25616a  
 TITLE: Fused pyrimidines. I. A one-step synthesis of  
 3-aminoisothiazolo[3,4-d]pyrimidines from  
 6-aminouracils and Vilsmeier reagents  
 AUTHOR(S): Furukawa, Yoshiyasu; Miyashita, Osamu; Shima, Shunsuke  
 CORPORATE SOURCE: Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, Japan  
 SOURCE: Chemical & Pharmaceutical Bulletin (1976), 24(5),  
 970-8  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 85:160011  
 IT 56540-86-4P 56540-88-6P 56540-89-7P  
 56540-91-1P 56540-92-2P 56540-98-8P  
 56540-99-9P 56541-00-5P 60663-76-5P  
 60664-03-1P 60664-09-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 56540-86-4 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-5,7-  
 diethyl- (CA INDEX NAME)



RN 56540-88-6 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[bis(2-  
 hydroxyethyl)amino]-5,7-diethyl- (CA INDEX NAME)

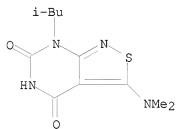


RN 56540-89-7 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-diethyl-3-(4-  
 morpholinyl)- (CA INDEX NAME)



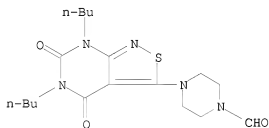
RN 56540-91-1 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-7-(2-methylpropyl)- (CA INDEX NAME)



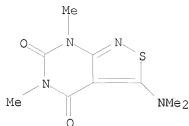
RN 56540-92-2 CAPLUS

CN 1-Piperazinecarboxaldehyde, 4-(5,7-dibutyl-4,5,6,7-tetrahydro-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



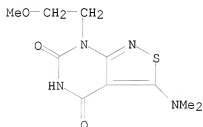
RN 56540-98-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-5,7-dimethyl- (CA INDEX NAME)



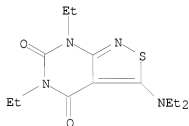
RN 56540-99-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-7-(2-methoxyethyl)- (CA INDEX NAME)



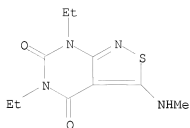
RN 56541-00-5 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(diethylamino)-5,7-diethyl- (CA INDEX NAME)



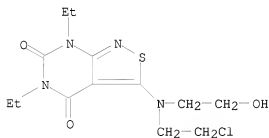
RN 60663-76-5 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-diethyl-3-(methylamino)- (CA INDEX NAME)



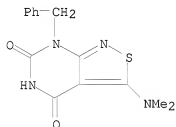
RN 60664-03-1 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[(2-chloroethyl)(2-hydroxyethyl)amino]-5,7-diethyl- (CA INDEX NAME)

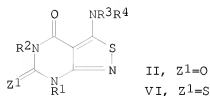
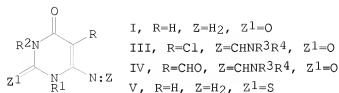


RN 60664-09-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-7-(phenylmethyl)- (CA INDEX NAME)



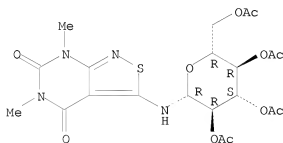
GI



AB Reaction of the aminouracil I (R<sub>1</sub> = R<sub>2</sub> = Et) with DMF-SOCl<sub>2</sub> gave the (dimethylamino)isothiazolopyrimidinedione II (R<sub>3</sub> = R<sub>4</sub> = Me) and the uracils III, IV, and II (R<sub>3</sub> = Me, R<sub>4</sub> = H) as minor products, whereas similar reactions of I (R<sub>1</sub> = R<sub>2</sub> = Et, Bu) or 6-amino-1-benzylcytosine with OHCHNR<sub>3</sub>R<sub>4</sub> (R<sub>3</sub>, R<sub>4</sub> = CH<sub>2</sub>CH<sub>2</sub>OCHO, Et, or NR<sub>3</sub>R<sub>4</sub> = morpholino, 4-formyl-1-piperazinyl)-SOCl<sub>2</sub> gave the corresponding II (R<sub>1</sub> = Et, Bu, CH<sub>2</sub>Ph; R<sub>2</sub>-R<sub>4</sub> = same as above). However, the S analog V (R<sub>1</sub> = R<sub>2</sub> = Et) reacted with DMF-SOCl<sub>2</sub> to give mainly II (R<sub>1</sub> = R<sub>2</sub> = Et, R<sub>3</sub> = R<sub>4</sub> = Me) and very little its S analog VI (R<sub>1</sub>-R<sub>4</sub> same as above). Aminoisothiazolopyrimidines are potential cyclic nucleotide phosphodiesterase inhibitors.

L6 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1976:150881 CAPLUS  
 DOCUMENT NUMBER: 84:150881  
 ORIGINAL REFERENCE NO.: 84:24535a,24538a  
 TITLE: Modified nucleoside syntheses  
 AUTHOR(S): Ogura, Haruo; Takahashi, Hiroshi; Takeda, Kazuyoshi;  
 Sakaguchi, Masakazu; Nimura, Noriyuki; Sakai, Hitomi  
 CORPORATE SOURCE: Sch. Pharm. Sci., Kitasato Univ., Tokyo, Japan  
 SOURCE: Hukusokan Kagaku Toronkai Koen Yoshishu, 8th (1975),  
 154-8. Pharm. Inst., Tohoku Univ.: Sendai, Japan.  
 CODEN: 32KOAD  
 DOCUMENT TYPE: Conference  
 LANGUAGE: Japanese  
 IT 58911-57-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 58911-57-2 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2,3,4,6-  
 tetra-O-acetyl-β-D-glucopyranosyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



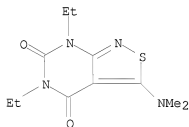
GI For diagram(s), see printed CA Issue.  
 AB The isothiocyanates I and II were treated with o-C6H4(NH2)2 or 5,6-diamino-1,3-dimethyluracil to give the modified nucleosides III and IV (X = CH:CHCH:CH, NMeCONMeCO, resp.). IV reacted with MeI with elimination of MeSH and gave the corresponding imidazoles V. R2COCH:C(NH2)NMeR3 (R2 = EtO, R3 = Me; R2R3 = NMeCONMe) reacted with I and II to give the corresponding pyrimidines (VI, VII, resp.).

L6 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

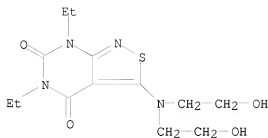
ACCESSION NUMBER: 1975:497362 CAPLUS  
 DOCUMENT NUMBER: 83:97362  
 ORIGINAL REFERENCE NO.: 83:15309a,15312a  
 TITLE: 3-Disubstituted aminoisothiazolo[3,4-d]pyrimidines  
 INVENTOR(S): Furukawa, Yoshiyasu; Miyashita, Osamu  
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
 SOURCE: Ger. Offen., 24 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2453212	A1	19750515	DE 1974-2453212	19741109
JP 50082092	A	19750703	JP 1973-127050	19731112
JP 58026356	B	19830602		
FR 2250532	A1	19750606	FR 1974-37112	19741108
FR 2250532	B1	19790504		
US 3959280	A	19760525	US 1974-522863	19741111
GB 1436297	A	19760519	GB 1974-48874	19741112
US 4052391	A	19771004	US 1976-663227	19760303
PRIORITY APPLN. INFO.:			JP 1973-127050	A 19731112
			US 1974-522863	A3 19741111

IT 56540-86-4P 56540-88-6P 56540-89-7P  
 56540-90-0P 56540-91-1P 56540-92-2P  
 56540-93-3P 56540-98-8P 56540-99-9P  
 56541-00-5P 56541-01-6P 56541-02-7P  
 56541-03-8P 56541-04-9P 56541-05-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 56540-86-4 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[bis(2-hydroxyethyl)amino]-5,7-diethyl- (CA INDEX NAME)

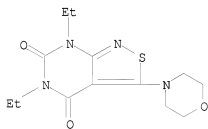


RN 56540-88-6 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[bis(2-hydroxyethyl)amino]-5,7-diethyl- (CA INDEX NAME)



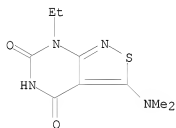
RN 56540-89-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-diethyl-3-(4-morpholinyl)- (CA INDEX NAME)



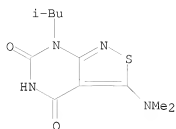
RN 56540-90-0 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-7-ethyl- (CA INDEX NAME)



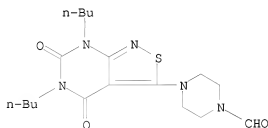
RN 56540-91-1 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-7-(2-methylpropyl)- (CA INDEX NAME)



RN 56540-92-2 CAPLUS

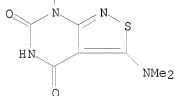
CN 1-Piperazinecarboxaldehyde, 4-(5,7-dibutyl-4,5,6,7-tetrahydro-4,6-dioxoiso-thiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



RN 56540-93-3 CAPLUS

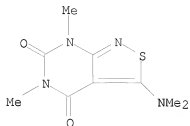
CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 7-(2-chloroethyl)-3-(dimethylamino)- (CA INDEX NAME)

ClCH<sub>2</sub>-CH<sub>2</sub>



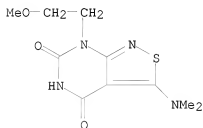
RN 56540-98-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-5,7-dimethyl- (CA INDEX NAME)



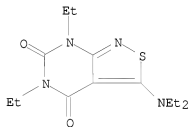
RN 56540-99-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-7-(2-methoxyethyl)- (CA INDEX NAME)



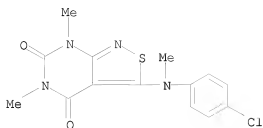
RN 56541-00-5 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(diethylamino)-5,7-diethyl- (CA INDEX NAME)

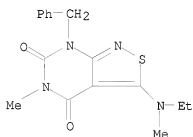


RN 56541-01-6 CAPLUS

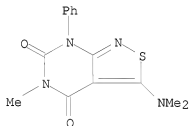
CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[(4-chlorophenyl)methylamino]-5,7-dimethyl- (CA INDEX NAME)



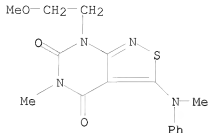
RN 56541-02-7 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(ethylmethylamino)-5-methyl-7-(phenylmethyl)- (CA INDEX NAME)



RN 56541-03-8 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-(dimethylamino)-5-methyl-7-phenyl- (CA INDEX NAME)

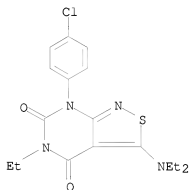


RN 56541-04-9 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 7-(2-methoxyethyl)-5-methyl-3-(methylphenylamino)- (CA INDEX NAME)



RN 56541-05-0 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 7-(4-chlorophenyl)-3-(diethylamino)-5-ethyl- (CA INDEX NAME)

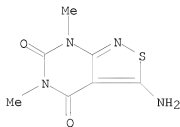


GI For diagram(s), see printed CA Issue.

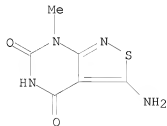
AB Isothiazolopyrimidines (I, R1 = Me, HOCH2CH2, Et, R2 = Me, HOCH2CH2, Et, p-ClC6H4, Ph, R3 = Et, Me2CHCH2, Bu, ClCH2CH2, Me, MeOCH2CH2, PhCH2, Ph, p-ClC6H4, R4 = Et, H, Bu, Me, R1R2N = morpholino, 4-formylpiperazinyl), useful as sedatives and inflammation inhibitors, were prepared by cyclization of an aminouracil (II) with R1R1NCHO. I were also useful as adenosine 3',5'-cyclicphosphate phosphodiesterase inhibitors.

L6 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1975:412166 CAPLUS  
 DOCUMENT NUMBER: 83:12166  
 ORIGINAL REFERENCE NO.: 83:2035a,2038a  
 TITLE: Isothiazolopyrimidindione dyes  
 INVENTOR(S): Eilingsfeld, Heinz; Hanse, Guenter  
 PATENT ASSIGNEE(S): BASF A.-G.  
 SOURCE: Ger. Offen., 30 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2336978	A1	19750206	DE 1973-2336978	19730720
PRIORITY APPLN. INFO.:			DE 1973-2336978	A 19730720
IT 52903-30-7				
RL: USES (Uses)				
(coupling of diazotized, with (hydroxyethyl)ethylaniline)				
RN 52903-30-7 CAPLUS				
CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dimethyl- (CA INDEX NAME)				

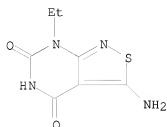


IT 52903-28-3 52903-29-4 52903-32-9  
 RL: USES (Uses)  
 (coupling of diazotized, with [(cyanoethyl)ethylamino]benzene)  
 RN 52903-28-3 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-methyl- (CA  
INDEX NAME)



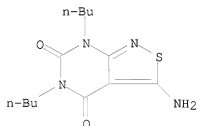
RN 52903-29-4 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-ethyl- (CA INDEX NAME)



RN 52903-32-9 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dibutyl- (CA INDEX NAME)



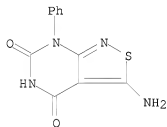
IT 52956-48-6

RL: USES (Uses)

(coupling with diazotized, with (diethylamino)acetaldehyde)

RN 52956-48-6 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-phenyl- (CA INDEX NAME)



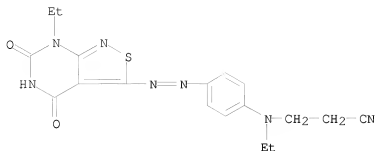
IT 55345-46-5P

RL: IMF (Industrial manufacture); PREP (Preparation)

(preparation and acetate and polyester fiber dyeing by)

RN 55345-46-5 CAPLUS

CN Propanenitrile, 3-[ethyl[4-[(7-ethyl-4,5,6,7-tetrahydro-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)azo]phenyl]amino]- (9CI) (CA INDEX NAME)



IT 55345-45-4P 55345-47-6P 55345-49-8P

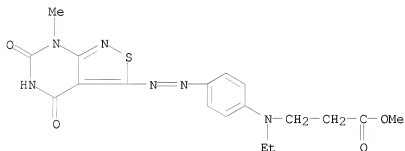
55345-51-2P

RL: IMF (Industrial manufacture); PREP (Preparation)

(preparation and acetate, polyamide and polyester fiber dyeing by)

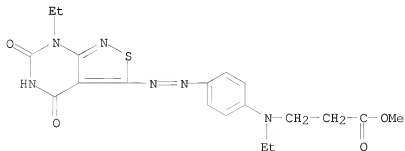
RN 55345-45-4 CAPLUS

CN  $\beta$ -Alanine, N-ethyl-N-[4-[(4,5,6,7-tetrahydro-7-methyl-4,6-dioxo-1,2,3,4-thiazolo[3,4-d]pyrimidin-3-yl)azo]phenyl]-, methyl ester (9CI)  
(CA INDEX NAME)



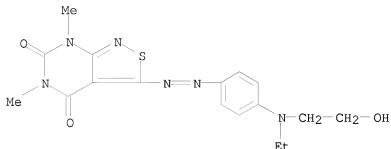
RN 55345-47-6 CAPLUS

CN  $\beta$ -Alanine, N-ethyl-N-[4-[(7-ethyl-4,5,6,7-tetrahydro-4,6-dioxo-1,2,3,4-thiazolo[3,4-d]pyrimidin-3-yl)azo]phenyl]-, methyl ester (9CI)  
(CA INDEX NAME)

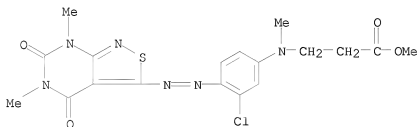


RN 55345-49-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-[[4-[ethyl(2-hydroxyethyl)amino]phenyl]azo]-5,7-dimethyl- (9CI) (CA INDEX NAME)



RN 55345-51-2 CAPLUS

CN  $\beta$ -Alanine, N-[3-chloro-4-[(4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)azo]phenyl]-N-methyl-, methyl ester (9CI) (CA INDEX NAME)

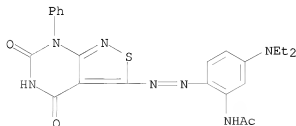
IT 55345-48-7P 55345-52-3P 55345-53-4P

55345-54-5P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(preparation and polyester fiber dyeing by)

RN 55345-48-7 CAPLUS

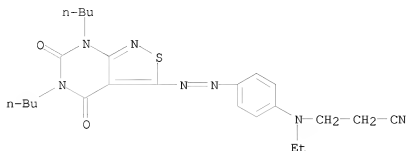
CN Acetamide, N-[5-(diethylamino)-2-[(4,5,6,7-tetrahydro-4,6-dioxo-7-phenylisothiazolo[3,4-d]pyrimidin-3-yl)azo]phenyl]- (9CI) (CA INDEX NAME)



RN 55345-52-3 CAPLUS

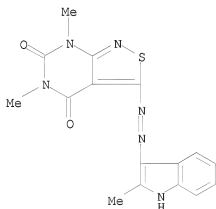
CN Propanenitrile, 3-[[4-[(5,7-dibutyl-4,5,6,7-tetrahydro-4,6-

dioxoisothiazolo[3,4-d]pyrimidin-3-yl)azo]phenyl]ethylamino]- (9CI) (CA INDEX NAME)



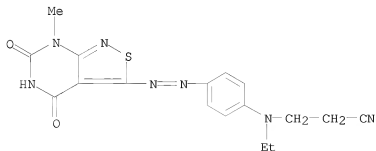
RN 55345-53-4 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 5,7-dimethyl-3-[(2-methyl-1H-indol-3-yl)azo]- (9CI) (CA INDEX NAME)



RN 55345-54-5 CAPLUS

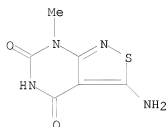
CN Propanenitrile, 3-[ethyl[4-[(4,5,6,7-tetrahydro-7-methyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)azo]phenyl]amino]- (9CI) (CA INDEX NAME)



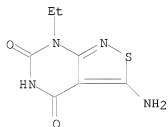
GI For diagram(s), see printed CA Issue.

AB Isothiazolopyrimidinedione azo dyes (I, R = H, Pr, Bu; R1 = Et, Ph, Pr, Bu; R2 = N,N-disubstituted p-aniline derivs., 2-methyl-3-indolyl) were prepared and were used to dye polyester, polyamide, and acetate fibers orange to violet shades. Thus, 3-amino-7-methylisothiazolo[3,4-d]pyrimidine-4,6-dione [52903-28-3] was diazotized and coupled with PhNEtCH2CH2CN [148-87-8] to give azo dye (II) [55345-54-5], bordeaux on polyester fibers. The other I were similarly prepared

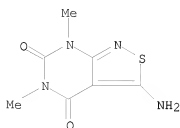
L6 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1975:170825 CAPLUS  
 DOCUMENT NUMBER: 82:170825  
 ORIGINAL REFERENCE NO.: 82:27301a,27304a  
 TITLE: Isothiazolo[3,4-d]- and pyrimido[4,5-d]-pyrimidines  
 AUTHOR(S): Niess, Rolf; Eilingsfeld, Heinz  
 CORPORATE SOURCE: Farbenlab., BASF A.-G., Ludwigshafen, Fed. Rep. Ger.  
 SOURCE: Justus Liebig's Annalen der Chemie (1975), Volume Date  
 1974, (12), 2019-29  
 CODEN: JLACBF; ISSN: 0075-4617  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 OTHER SOURCE(S): CASREACT 82:170825  
 IT 52903-28-3P 52903-29-4P 52903-30-7P  
 52903-31-8P 52903-32-9P 52903-33-0P  
 52903-35-2P 52903-36-3P 52903-37-4P  
 52903-38-5P 52903-40-9P 52903-41-0P  
 52903-42-1P 52956-48-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 52903-28-3 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-methyl- (CA  
 INDEX NAME)



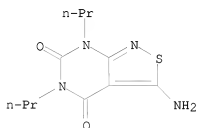
RN 52903-29-4 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-ethyl- (CA INDEX  
 NAME)



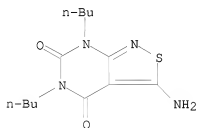
RN 52903-30-7 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dimethyl- (CA  
 INDEX NAME)



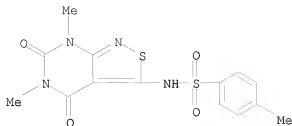
RN 52903-31-8 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dipropyl- (CA INDEX NAME)



RN 52903-32-9 CAPLUS  
 CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dibutyl- (CA INDEX NAME)

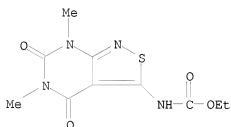


RN 52903-33-0 CAPLUS  
 CN Benzenesulfonamide, 4-methyl-N-(4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



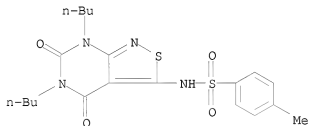
RN 52903-35-2 CAPLUS

CN Carbamic acid, (4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)-, ethyl ester (9Ci) (CA INDEX NAME)



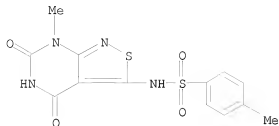
RN 52903-36-3 CAPLUS

CN Benzenesulfonamide, N-(5,7-dibutyl-4,5,6,7-tetrahydro-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)-4-methyl- (CA INDEX NAME)

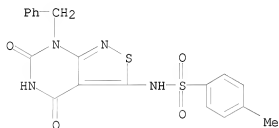


RN 52903-37-4 CAPLUS

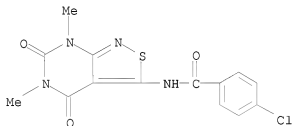
CN Benzenesulfonamide, 4-methyl-N-(4,5,6,7-tetrahydro-7-methyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



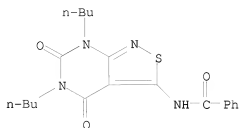
RN 52903-38-5 CAPLUS  
 CN Benzenesulfonamide, 4-methyl-N-[4,5,6,7-tetrahydro-4,6-dioxo-7-(phenylmethyl)isothiazolo[3,4-d]pyrimidin-3-yl]- (CA INDEX NAME)



RN 52903-40-9 CAPLUS  
 CN Benamide, 4-chloro-N-(4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)

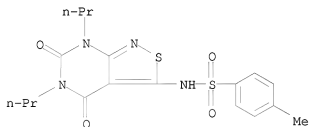


RN 52903-41-0 CAPLUS  
 CN Benamide, N-(5,7-dibutyl-4,5,6,7-tetrahydro-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



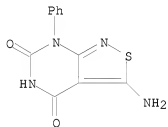
RN 52903-42-1 CAPLUS

CN Benzenesulfonamide, 4-methyl-N-(4,5,6,7-tetrahydro-4,6-dioxo-5,7-dipropylisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



RN 52956-48-6 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-phenyl- (CA INDEX NAME)



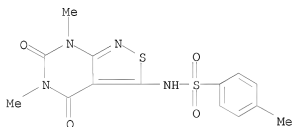
GI For diagram(s), see printed CA Issue.

AB The isothiazolopyrimidines I (R = e.g. SMe, SCH<sub>2</sub>Ph, NMe<sub>2</sub>, morpholino, or Ph) and II (R<sub>1</sub> = e.g. H or Pr, R<sub>2</sub> = e.g. Me or Bu, R<sub>3</sub> = e.g. H, SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-4, or CO<sub>2</sub>Et) were prepared by oxidative cyclization of the corresponding carboxamides III and IV (R<sub>4</sub> = CSNHR<sub>3</sub>), resp. IV were prepared by reaction of IV (R<sub>4</sub> = H) (V) with R<sub>3</sub>NCS. Reaction of V with R<sub>5</sub>CONCS (R<sub>5</sub> = e.g. 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>) and cyclization gave the derivs. VI.

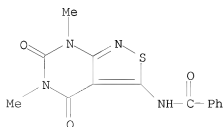
L6 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1974:413488 CAPLUS  
 DOCUMENT NUMBER: 81:13488  
 ORIGINAL REFERENCE NO.: 81:2171a,2174a  
 TITLE: 3-Aminoisothiazolo[3,4-d]pyrimidines  
 INVENTOR(S): Niess, Rolf; Eilingsfeld, Heinz  
 PATENT ASSIGNEE(S): BASF A.-G.  
 SOURCE: Ger. Offen., 19 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2248231	A1	19740411	DE 1972-2248231	19721002
CH 578008	A5	19760730	CH 1973-13917	19730928
FR 2201097	A1	19740426	FR 1973-35018	19731001
GB 1445697	A	19760811	GB 1973-45725	19731001
DE 1972-2248231	A	19721002		

PRIORITY APPLN. INFO.:  
 IT 52903-33-0 52903-34-1 52903-35-2  
 52903-36-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (hydrolysis of)  
 RN 52903-33-0 CAPLUS  
 CN Benzenesulfonamide, 4-methyl-N-(4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)

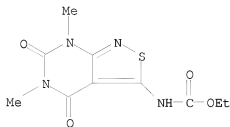


RN 52903-34-1 CAPLUS  
 CN Benzamide, N-(4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



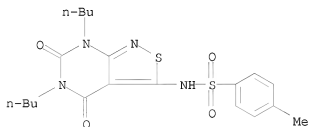
RN 52903-35-2 CAPLUS

CN Carbamic acid, (4,5,6,7-tetrahydro-5,7-dimethyl-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 52903-36-3 CAPLUS

CN Benzenesulfonamide, N-(5,7-dibutyl-4,5,6,7-tetrahydro-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)-4-methyl- (CA INDEX NAME)



IT 52903-28-3P 52903-29-4P 52903-30-7P

52903-31-8P 52903-32-9P 52903-36-3P

52903-37-4P 52903-38-5P 52903-39-6P

52903-40-9P 52903-41-0P 52903-42-1P

52903-43-2P 52903-44-3P 52956-48-6P

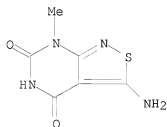
52956-49-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

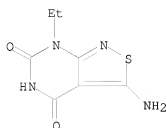
RN 52903-28-3 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-methyl- (CA INDEX NAME)



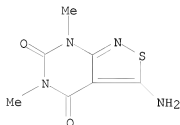
RN 52903-29-4 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-ethyl- (CA INDEX NAME)



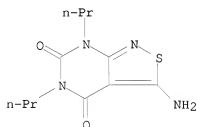
RN 52903-30-7 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dimethyl- (CA INDEX NAME)



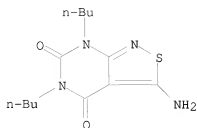
RN 52903-31-8 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dipropyl- (CA INDEX NAME)

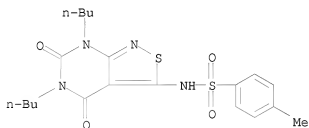


RN 52903-32-9 CAPLUS

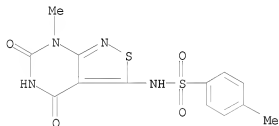
CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-5,7-dibutyl- (CA INDEX NAME)



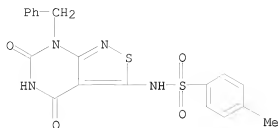
RN 52903-36-3 CAPLUS  
 CN Benzenesulfonamide, N-(5,7-dibutyl-4,5,6,7-tetrahydro-4,6-dioxo-1,2,4-thiazolo[3,4-d]pyrimidin-3-yl)-4-methyl- (CA INDEX NAME)



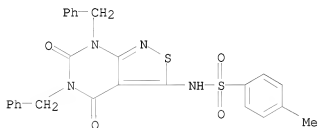
RN 52903-37-4 CAPLUS  
 CN Benzenesulfonamide, 4-methyl-N-(4,5,6,7-tetrahydro-7-methyl-4,6-dioxo-1,2,4-thiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



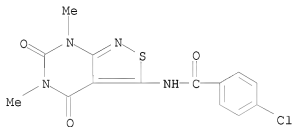
RN 52903-38-5 CAPLUS  
 CN Benzenesulfonamide, 4-methyl-N-[4,5,6,7-tetrahydro-4,6-dioxo-7-(phenylmethyl)isothiazolo[3,4-d]pyrimidin-3-yl]- (CA INDEX NAME)



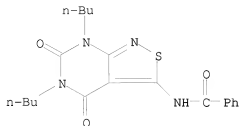
RN 52903-39-6 CAPLUS  
 CN Benzenesulfonamide, 4-methyl-N-[4,5,6,7-tetrahydro-4,6-dioxo-5,7-bis(phenylmethyl)isothiazolo[3,4-d]pyrimidin-3-yl]- (CA INDEX NAME)



RN 52903-40-9 CAPLUS  
 CN Benzenesulfonamide, 4-methyl-N-[4,5,6,7-tetrahydro-4,6-dioxo-5,7-bis(phenylmethyl)isothiazolo[3,4-d]pyrimidin-3-yl]- (CA INDEX NAME)

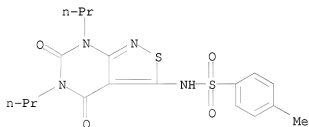


RN 52903-41-0 CAPLUS  
 CN Benzenesulfonamide, N-(5,7-dibutyl-4,5,6,7-tetrahydro-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



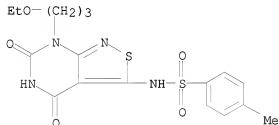
RN 52903-42-1 CAPLUS

CN Benzenesulfonamide, 4-methyl-N-(4,5,6,7-tetrahydro-4,6-dioxo-5,7-dipropylisothiazolo[3,4-d]pyrimidin-3-yl)- (CA INDEX NAME)



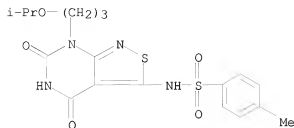
RN 52903-43-2 CAPLUS

CN Benzenesulfonamide, N-[7-(3-ethoxypropyl)-4,5,6,7-tetrahydro-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl]-4-methyl- (CA INDEX NAME)



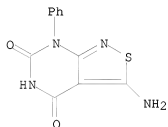
RN 52903-44-3 CAPLUS

CN Benzenesulfonamide, 4-methyl-N-[4,5,6,7-tetrahydro-7-[3-(1-methylethoxy)propyl]-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl]- (CA INDEX NAME)



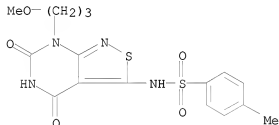
RN 52956-48-6 CAPLUS

CN Isothiazolo[3,4-d]pyrimidine-4,6(5H,7H)-dione, 3-amino-7-phenyl- (CA INDEX NAME)



RN 52956-49-7 CAPLUS

CN Benzenesulfonamide, 4-methyl-N-[4,5,6,7-tetrahydro-7-(3-methoxypropyl)-4,6-dioxoisothiazolo[3,4-d]pyrimidin-3-yl]- (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB Isothiazolopyrimidines I (R = H, Me, Bu, Pr, CH<sub>2</sub>Ph; R<sub>1</sub> = Me, Et, Pr, Bu, Ph, CH<sub>2</sub>Ph, (CH<sub>2</sub>)<sub>3</sub>OMe, (CH<sub>2</sub>)<sub>3</sub>OEt, (CH<sub>2</sub>)<sub>3</sub>-OCHMe<sub>2</sub>; R<sub>2</sub> = H, SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-p; R = R<sub>1</sub> = Me, R<sub>2</sub> = CO<sub>2</sub>-Et, COC<sub>6</sub>H<sub>4</sub>Cl-p, Bz, SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-p) were prepared by cyclizing I (R<sub>2</sub> ≠ H), which may be accompanied by hydrolysis of R<sub>2</sub>. Thus, 88% I (R = R<sub>2</sub> = H, R<sub>1</sub> = Me) was obtained by cyclizing II (R = H, R<sub>1</sub> = Me, R<sub>2</sub> = SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-p) with H<sub>2</sub>SO<sub>4</sub>. Some I, especially I (R = R<sub>1</sub> = Me, R<sub>2</sub> = H, CO<sub>2</sub>Et; R = R<sub>1</sub> = Pr, R<sub>2</sub> = H) had diuretic and antiinflammatory activities.

10/141,986

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	143.75	322.74
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-18.40	-18.40
STN INTERNATIONAL LOGOFF AT 15:46:39 ON 03 JUL 2008		